DESERT KNOWLEDGE CRC

The Central Australian Grazing Strategies project
Working Paper Series

The holistic management approach: Etiwanda Station, NSW

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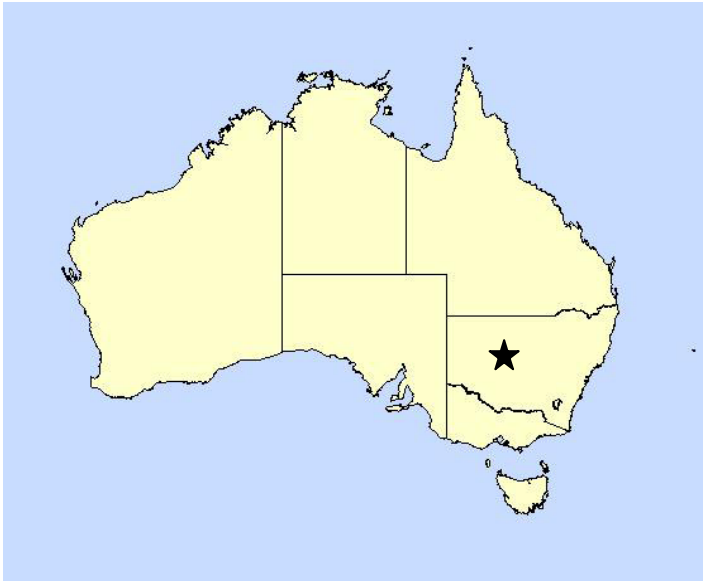
The holistic management approach

Etiwanda Station, NSW



Key points

Planned grazing with long rest periods on 16,000 hectares

Rest period matches plant recovery requirements

Increased lambing percentages

Continuing to expand system

The Mosely family have been in the Cobar district since 1949 and now own Etiwanda and Manuka stations in the Western Division. Situated about 100 kilometres south of Cobar, the 28,000 hectare property is used to produce white dorper sheep, Shorthorn/Santa Gertrudis/Charolais cattle and goats for the domestic and export markets.

Etiwanda is semi-arid, with an average rainfall of 400 mm per year, however the annual totals are highly variable and range between 100 mm and 800 mm. The country ranges from rocky hills to creeks, with red sandy loam soils. The main trees and shrubs are bimble box, white cypress, wilga, belah, kurrajong, red box, mallee and invasive native shrubs such as turpentine, hopbush and budda bush. Prominent grasses include speargrass, wire grass, white top, paspalidium, panics and digitaria. The more palatable grasses are making a comeback on the restored country.

The grazing strategy

Etiwanda is managed using a Holistic Planning approach. Holistic Planning looks at and integrates all aspects of the enterprise including land, livestock, economics and people. The decision to implement this approach was made after the family attended a Holistic Management training programme about ten years ago. Before that, the Moselys had been trying to work out how to deal with the scrub problems on Etiwanda. They had been running goats to try and fix this issue but it wasn't working so they started looking for new ideas. As Andrew Mosely explains, "with the new knowledge we started to look for the root cause of the scrub problem. We then began to focus on the soil health and the health of the perennial grasses as the best way to deal with the problem. We then started on the fence development program to enable us to manage our plant recovery periods".

The strategy is "planned grazing with long rest periods". Of the 28,000 hectares, 18,000 ha are fenced into 18 paddocks ranging in size from 150 ha to 1,000 ha. The fencing is still under development, but currently consists of hinge-joint perimeter fencing and electric fencing to subdivide the paddocks. Two mobs rotate through two separate paddock complexes on the property. The sheep, cattle and goats graze together in the same paddocks most of the time.

Each paddock is currently rested for 120 days. The Moselys are looking to extend the rest period to 150–180 days. The aim is to not dip below this threshold as they believe that this is the minimum period that pasture plants require in order to recover following grazing. Andrew notes that drier periods require longer recovery periods.

Decision making for stocking rates, timing and resting

The grazing strategy operates in the better quality country closer to the homestead, which allows for closer monitoring. Stocking rates are determined by using historical grazing capacity figures set by the Pastoral Board as an initial guide. Pasture availability is measured objectively by stepping out quadrats in the paddocks and estimating the area that would be required to feed one animal for one day. This is then extrapolated for the paddock area to determine the total

amount of feed available. This is done twice a year – once immediately before the traditional non-growing period (summer) and again in the autumn.

The critical dates for making stock adjustments vary a bit depending on seasonal conditions. For example, if there has been no winter break by early June, a decision will be made to reduce numbers. On the other hand, if there have been good summer storms, the normal pre-summer assessment of feed conditions and stock numbers may not need to occur until the end of February.

When the paddocks are stocked, they are checked regularly to see that there is sufficient feed available and to confirm that stock are not hungry. The amount of biomass, pasture height, number of perennials, ground cover and condition of indicator species are used to check that things are going to plan. This is done informally throughout the year and more formally in May each year, when photos are also taken.

Objectives of the grazing system

"Pastoralists need to see themselves as pasture managers first and foremost"

The reasons for adopting the planned grazing/long rest period regime at Etiwanda include:

- to improve land condition
- to prevent land degradation
- to increase long-term sustainability.

Two mobs of sheep, cattle and goats graze together in the same paddocks most of the time in two different paddock complexes on Etiwanda.

Image courtesy of Andrew Mosely

Results

Livestock

Lambing percentages have increased under the new grazing strategy. Animal production is more predictable as there is less of an annual boom-bust cycle. Animal handling has been streamlined - instead of having ten mobs in ten paddocks, there are now one or two larger mobs in one or two paddocks. The rotation is also planned to ensure that the mobs will be close to the yards when animal husbandry activities are due. The temperament of the stock has improved due to the regular handling. Andrew has also noticed that the stock tend to graze together as a mob and appear to be more content. Before the new grazing strategy was implemented they tended to spread out more due to poorer feed conditions.

Financials – costs and profits

It is somewhat difficult to quantify the set-up costs of the system because it has been a “work in progress” for seven years. The Moselys began by implementing their grazing strategy on 25% of the property and used existing infrastructure. Andrew says that there haven’t been any extra costs specific to this grazing strategy. They have had high fencing costs, but these would have been incurred anyway regardless of the grazing strategy employed. As long as the fencing is well-planned and put in properly in the first place, it will be a long-term asset. They are gradually upgrading and expanding the strategy across the property as funds allow. Some funds have come via land management grants from the local catchment board.

The Moselys use the Profit Probe tool (developed by Resource Consulting Services) to benchmark their production and financial performance. Andrew notes that they are now in the top 10% of producers in terms of profitability after being “average to below average” before they changed their management approach. The financial stability has been a result of the redesign of the whole business to integrate enterprise, people, resource and economic factors.

Land condition

Since the implementation of the grazing plan on the fenced country, the Moselys have been able to demonstrate an improvement in the quality and quantity of the pastures and an increase in palatable perennial grasses. The aim of the strategy is to provide the best possible conditions for the germination and survival of key broadleaf perennial grasses such as panics and digitarias. The higher ground cover now provides better water infiltration and added protection from wind and water erosion. Andrew has also noticed an increase in the variety of native plants and animals. The contrast with the other parts of the property that haven’t been fenced yet is stark. The unfenced country does not get rest from grazing due to the presence of feral goats and kangaroos. As a result, the pastures have less cover, bulk and height and shallower root systems which means that significantly less stock can be carried there.

Using the Holistic Management approach the more palatable grasses including paspalidium, panics and digitaria are making a comeback on the restored country.
Image courtesy of Andrew Mosely

People

With planning and improved management, the business is easier to run. The Moselys now only have one to two mobs of animals to deal with which takes less time compared to multiple mobs in multiple paddocks. Although good planning skills and a strong commitment to planning are required, time is saved in the long run because management is more streamlined and there is a clear plan to implement each year.

Andrew notes that it took him seven or eight years to achieve a full change in mindset. The Holistic Management framework includes seven testing questions which prompt business managers to consider the impact of any decision on the three core components of the business (land, people and economics). It also provides a mechanism for people to identify weaknesses in the business and work through possible solutions.

The Moselys have attended Grazing for Profit courses and are active in Landcare. An ongoing commitment to learning and talking to others has been very beneficial to the business.

"With better planning there is now a greater sense of being in control when droughts occur"

Drought and pest animal management

As with all grazing strategies, drought periods require an adjustment in the grazing plan and stock numbers. The Moselys accept that drought is part and parcel of living and working in the Western Division - there is no silver bullet that can stop droughts from impacting on the business. The Moselys have paddocks set aside for use in drought and these provide a three month buffer for the grazing strategy.

Grazing pressure by other herbivores (goats and kangaroos) in rested areas is controlled by the use of total grazing pressure fencing, switching waters off and mustering feral goats at regular intervals.

Advantages of the system

Andrew nominates the following as three advantages of their grazing strategy:

- improved pasture diversity
- improved pasture growth (particularly grass)
- can take advantage of rainfall events (especially one-off events) when they come.

Disadvantages of the system

Some of the disadvantages of adopting a different grazing strategy have been:

- requires more thought and a commitment to planning
- requires a change in mindset to successfully implement new approaches
- large paddocks are not suited to the strategy.

Recommendations to others who want to try it

- hasten slowly – utilise existing infrastructure
- be prepared to make mistakes and learn from them.

Plans for the future

"To be confident when making big decisions, you need to have clear goals"

The Moselys aim to fence the rest of the property and operate it under the long rest-period strategy. The plan is to have two grazing complexes of 30 paddocks each on the property. Learning is an ongoing process and fine-tuning will always be required. Andrew notes that there will always be some difficulties whenever new ideas are implemented but you just have to adopt and then adapt. Rather than being paralysed by the fear of potential problems, he says that you should make a start and then deal with any difficulties as they arise.

The grazing strategy in place at Etiwanda is very adaptable, is based on a regular commitment to sound planning and results in resilient land and pastures. The Moselys believe that the overall improvement in sustainability should ensure that the strategy will cope well with climate variability into the future.

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